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Charles Darwin University

Final Examination

Family Name						
Given Name/s						
Student Number						
Teaching Period	Semester 2, 2017					

HIT238 – The Mobile Paradigm	DURATION	
	Reading Time:	10 minutes
	Writing Time:	180 minutes
INSTRUCTIONS TO CANDIDATES		
Hand-written notes should be submitted along with the answer book at the end of the exam.		
TOTAL MARKS: 60 MARKS		
EXAM CONDITIONS		
<u>You may begin writing from the commencement of the examination session.</u> The reading time indicated above is provided as a guide only.		
This is a RESTRICTED OPEN BOOK examination		
No calculators are permitted		
One A4 sheet of handwritten double-sided notes permitted		
Hard copy, unannotated English translation dictionary only		
ADDITIONAL AUTHORISED MATERIALS	EXAMINATION MATERIALS TO BE SUPPLIED	
No additional printed material is permitted	1 x 16 Page Book 1 x Scrap Paper	

THIS EXAMINATION IS PRINTED
DOUBLE-SIDED.

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Question 1

(5 + 5 = 10 Marks)

1. List five considerations to take into account when developing a mobile app in comparison to a desktop app
2. What five tips would you give to someone building a mobile app?

Question 2

(2 + 4 + 2 + 4 = 12 Marks)

1. What is JSON?
2. How can it improve a programmer's use of local storage?
3. What is Modernizr?
4. How is Modernizr particularly useful in web apps?

Question 3

(15 Marks)

You have developed a native quiz app for an android device that has is capable of saving where the user was up to in the game along with and the user's previous scores, if play is either completed or interrupted. Consider the following scenario of use for your app:

A user is partway through completing your quiz.

The phone on the device rings and the user naturally answers the call. He/she talks for a while, ends the call, sends a couple of text messages, checks email, sends a Twitter update, and then makes a cup of coffee; all this before returning to continue your quiz.

- a) Using your knowledge of the different states of an **Android** app, explain what states your app might have gone through from when the user first began working through the quiz up to and including when play was resumed after the interruption.

Note: you should use diagrams to illustrate your answer.

Question 4

(4 Marks)

1. What is an Intent?
2. What purpose do they serve in Android development?

Question 5

(5 Marks)

Describe the approach that MVC brings to mobile development.

Question 6

(4 Marks)

Why is it considered best practice to separate resources from code?

Question 7

(5 + 5 = 10 Marks)

Choose one from the following two implementations for a mobile app:

- . Web Framework App
- . Native App

Write five (5) positive comments as to why your choice is better than the other one, and five (5) negative comments as to why your choice is not as good as the other one. Explain your comments in two or three sentences – do not just use dot points.